

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

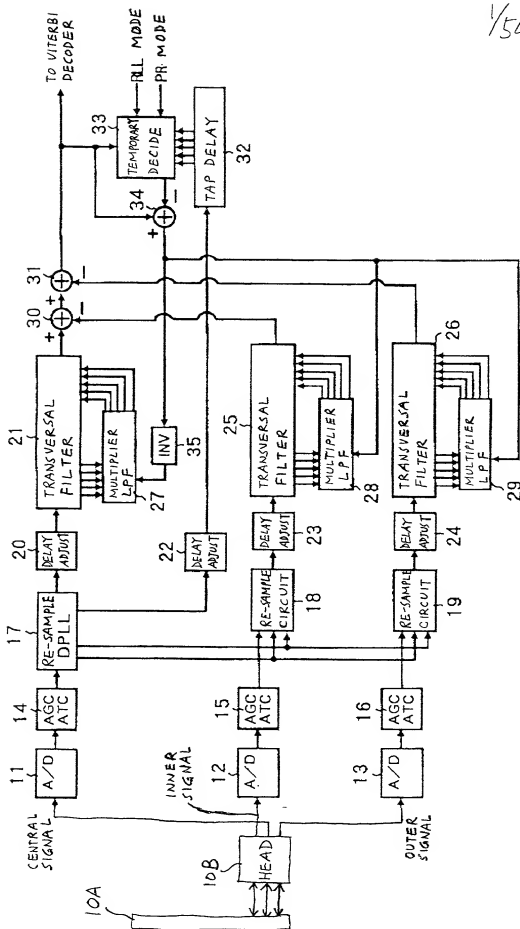


FIG. 2

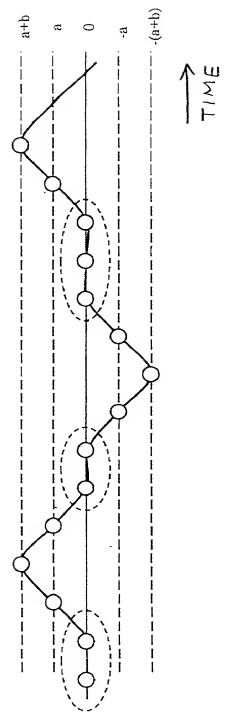


FIG. 3

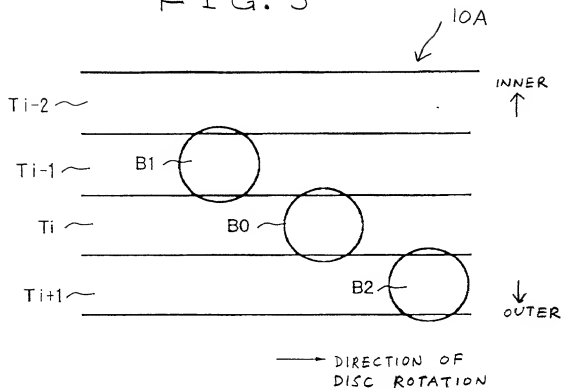


FIG. 4

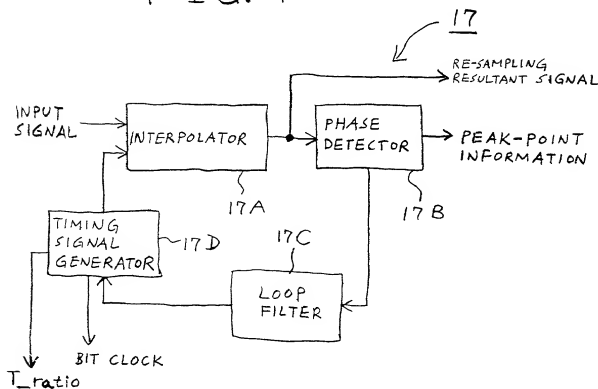


FIG. 5

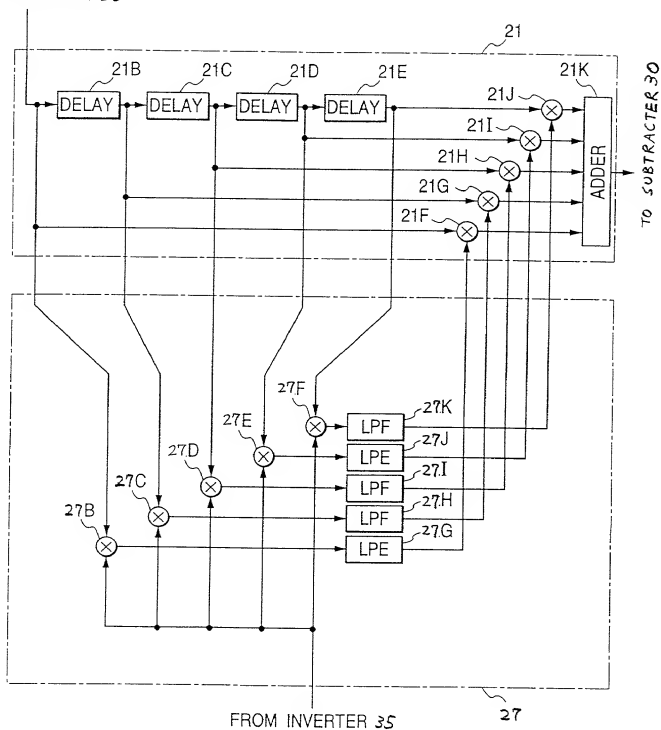
FROM DELAY
ADJUSTER 20

FIG. 6

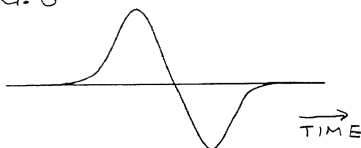


FIG. 7

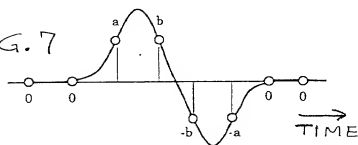


FIG. 8

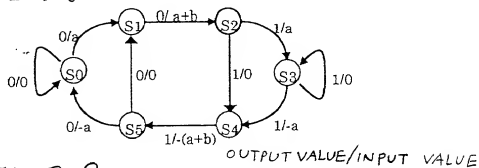


FIG. 9

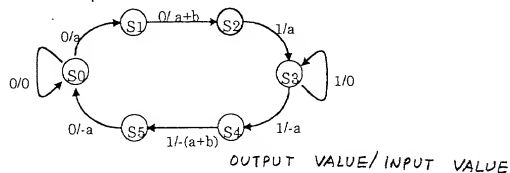


FIG. 10

RLL MODE		RLL(2, X)					
PR. MODE		1	2	3	4	5	6
		$PR(1, -1)$	$PR(1, 1, -1, 1)$	$PR(1, 2, -2, -1)$	$PR(1, 3, -3, -1)$	$PR(2, 3, -3, -2)$	$PR(3, 4, -4, -3)$
TARGET VALUE	$a+b$	+1	+2	+3	+4	+5	+7
	a	+1	+1	+1	+1	+2	+3
	0	0	0	0	0	0	0
	$-a$	-1	-1	-1	-1	-2	-3
	$-(a+b)$	-1	-2	-3	-4	-5	-7
GAIN	G	A	$A/2$	$A/3$	$A/4$	$A/5$	$A/7$

2

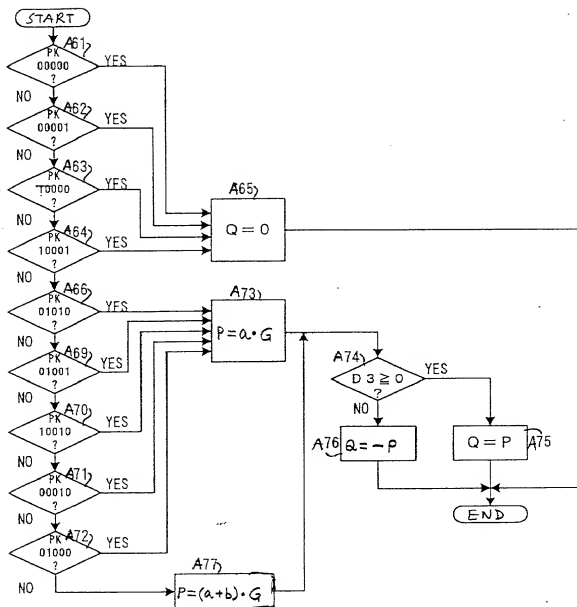
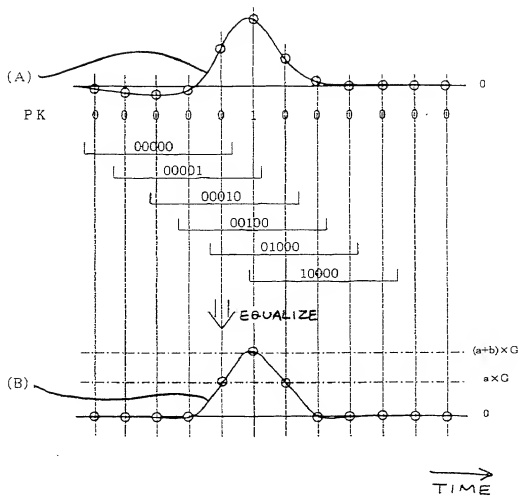
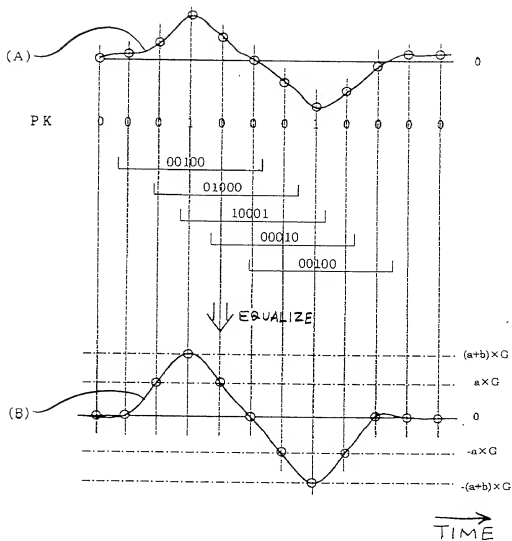


FIG. 12



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FIG. 13



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FIG. 14

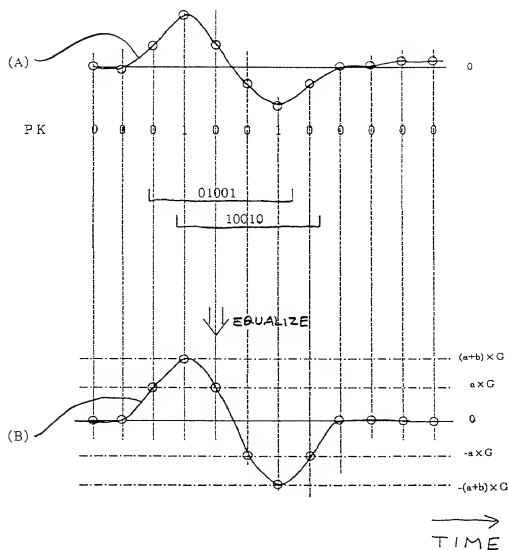
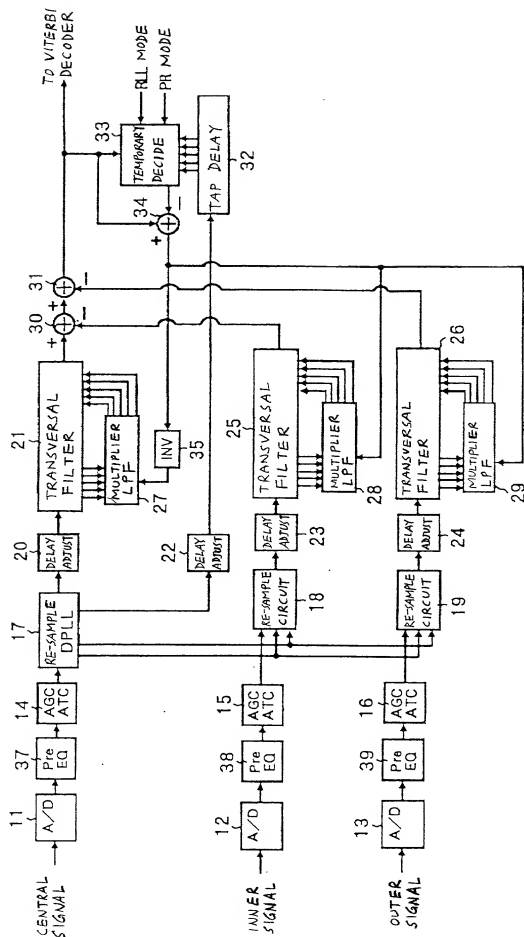


FIG. 15



16. G. I. H.

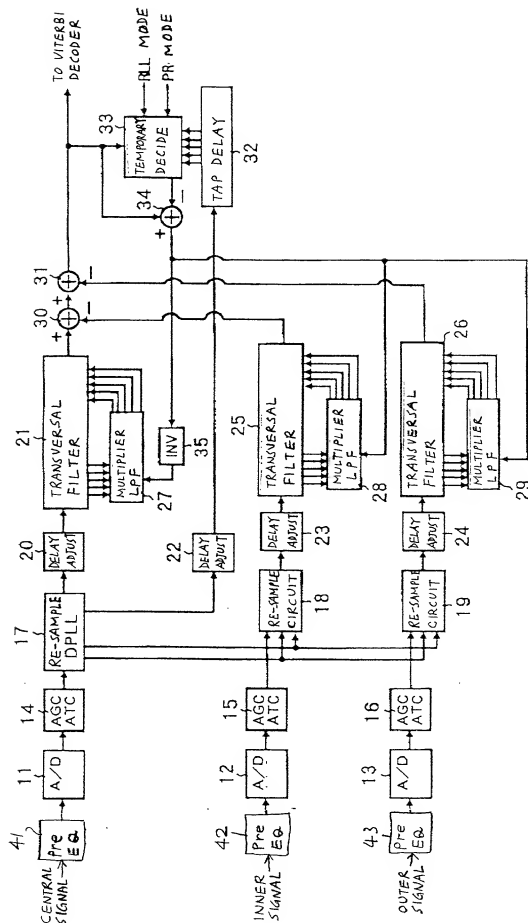


FIG. 18

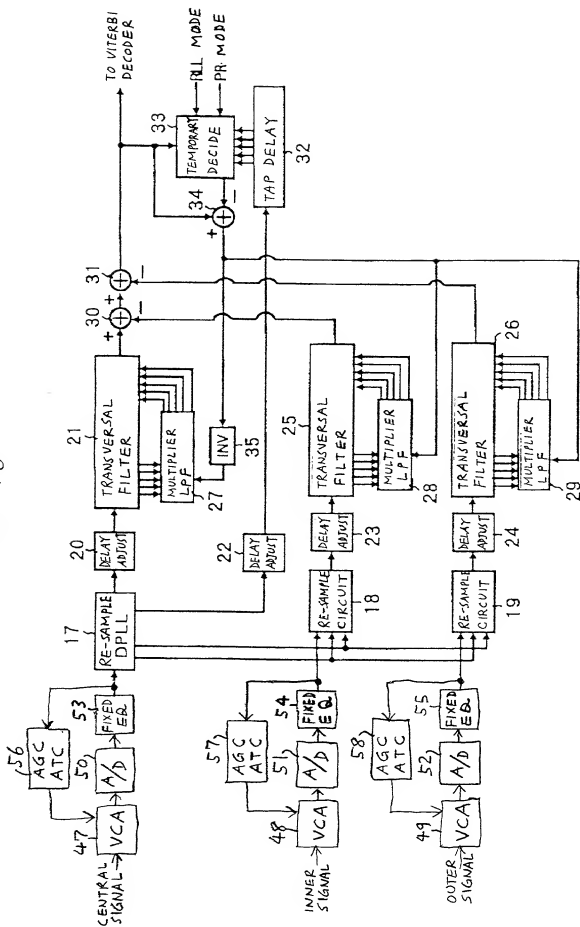
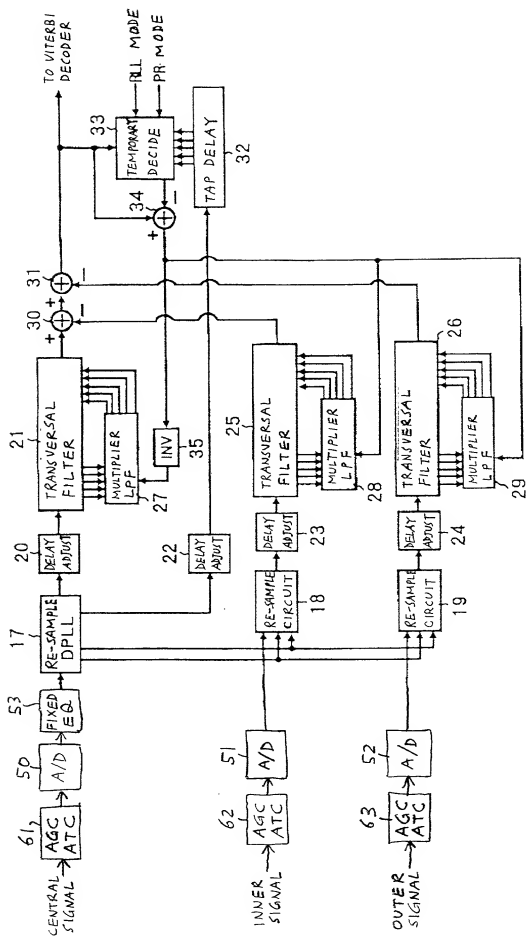


FIG. 19



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FIG. 20

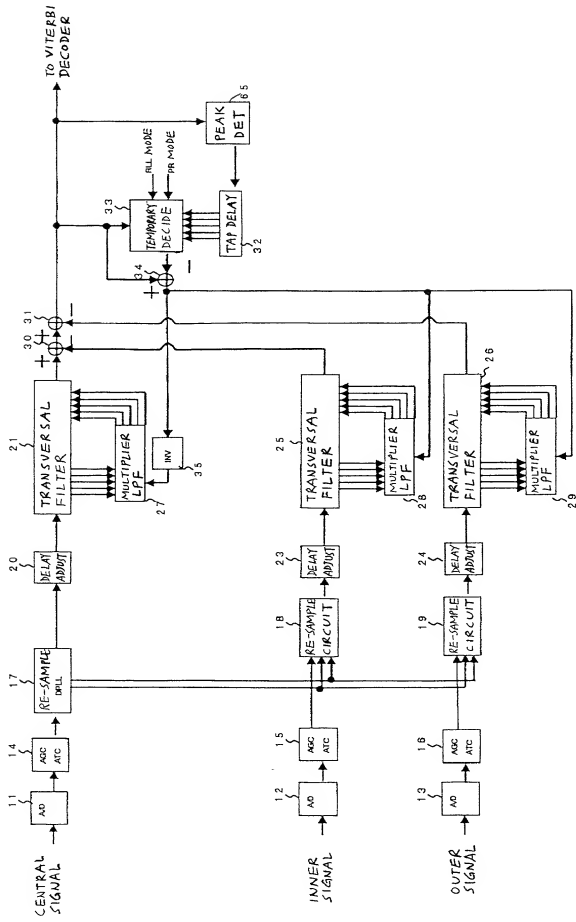
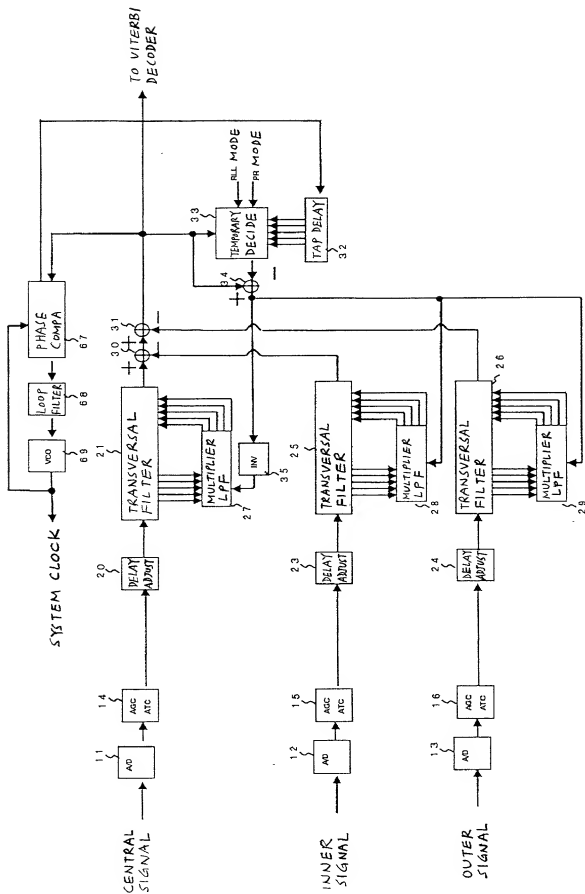


FIG. 21



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The diagram illustrates a three-stage PLL system for frequency and phase synchronization, consisting of Central Signal, Inner Signal, and Outer Signal stages.

Central Signal Stage:

- Input: CENTRAL SIGNAL
- AGC/ATC (1): Automatic Gain Control / Automatic Threshold Control.
- Phase-locked Loop (P.L.L.):
 - PHASE COMP (7.4): Phase Comparator.
 - LOOP FILTER (7.5): Loop Filter.
 - VCO (7.6): Voltage-Controlled Oscillator.
- TRANSVERSAL FILTER: Receives feedback from the VCO and the TO VITERBI DECODER.
- DELAY ADJUST (2.7): Delay and Adjust block.
- Output: TO VITERBI DECODER.

Inner Signal Stage:

- Input: INNER SIGNAL
- AGC/ATC (7.2): Automatic Gain Control / Automatic Threshold Control.
- Phase-locked Loop (P.L.L.):
 - PHASE COMP (1.2): Phase Comparator.
 - LOOP FILTER (2.3): Loop Filter.
 - VCO (2.5): Voltage-Controlled Oscillator.
- TRANSVERSAL FILTER: Receives feedback from the VCO and the TO VITERBI DECODER.
- DELAY ADJUST (2.7): Delay and Adjust block.
- Output: TO VITERBI DECODER.

Outer Signal Stage:

- Input: OUTER SIGNAL
- AGC/ATC (7.3): Automatic Gain Control / Automatic Threshold Control.
- Phase-locked Loop (P.L.L.):
 - PHASE COMP (1.3): Phase Comparator.
 - LOOP FILTER (2.4): Loop Filter.
 - VCO (2.6): Voltage-Controlled Oscillator.
- TRANSVERSAL FILTER: Receives feedback from the VCO and the TO VITERBI DECODER.
- DELAY ADJUST (2.7): Delay and Adjust block.
- Output: TO VITERBI DECODER.

Control and Feedback Lines:

- The TO VITERBI DECODER provides feedback to the TRANSVERSAL FILTERS in all three stages.
- Control lines (e.g., 3.3, 3.4, 3.5, 3.2, 3.1, 3.0) connect the stages and the decoder.
- Mode selection lines (e.g., 3.3, 3.4) are labeled "TEMP MODE" and "PH MODE".
- Tap Delay (3.2) is a control line for the delay/adjust blocks.

OUTER
SIGNAL

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FIG. 23

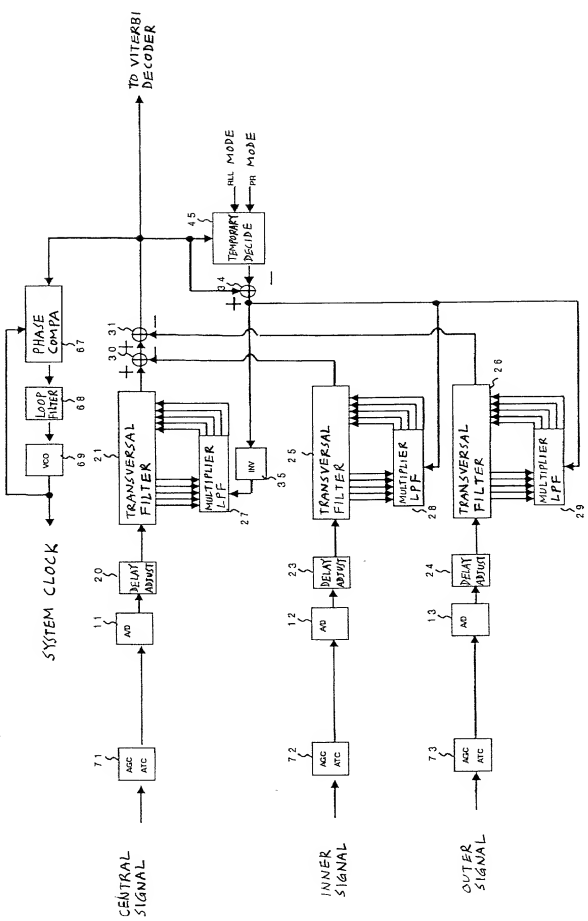


FIG. 24

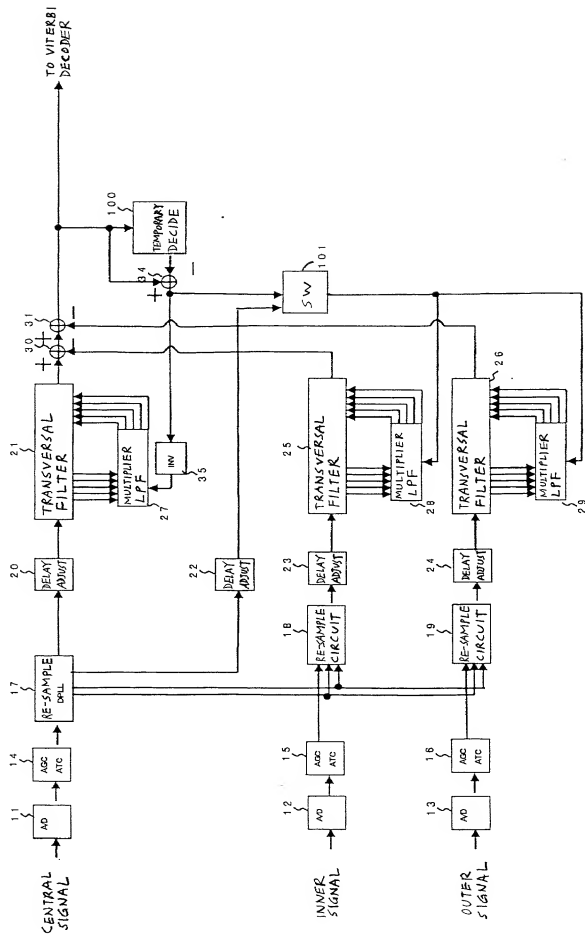


FIG. 25

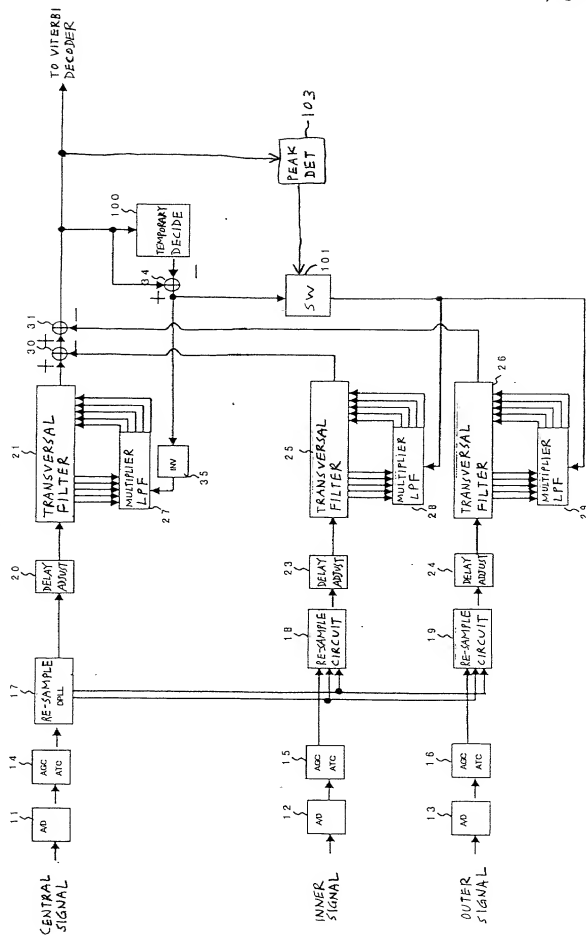
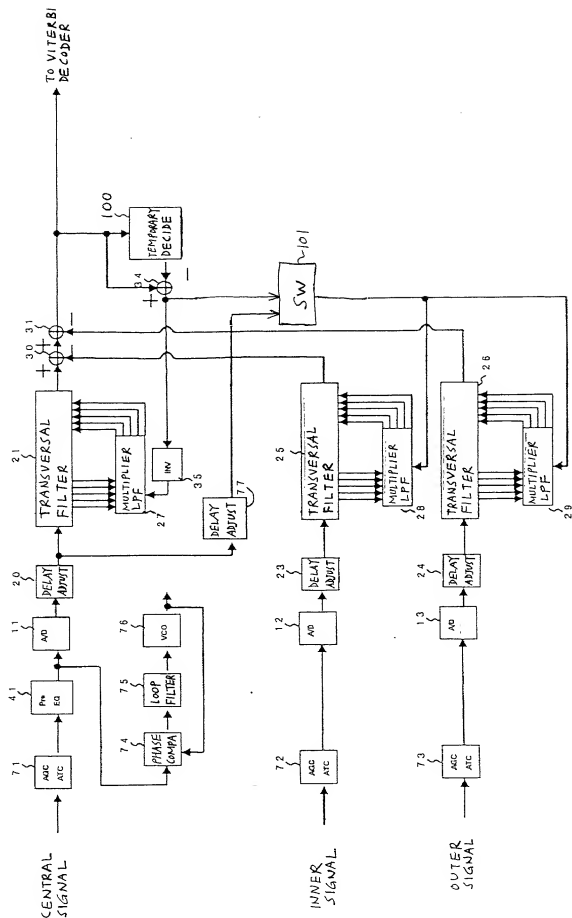
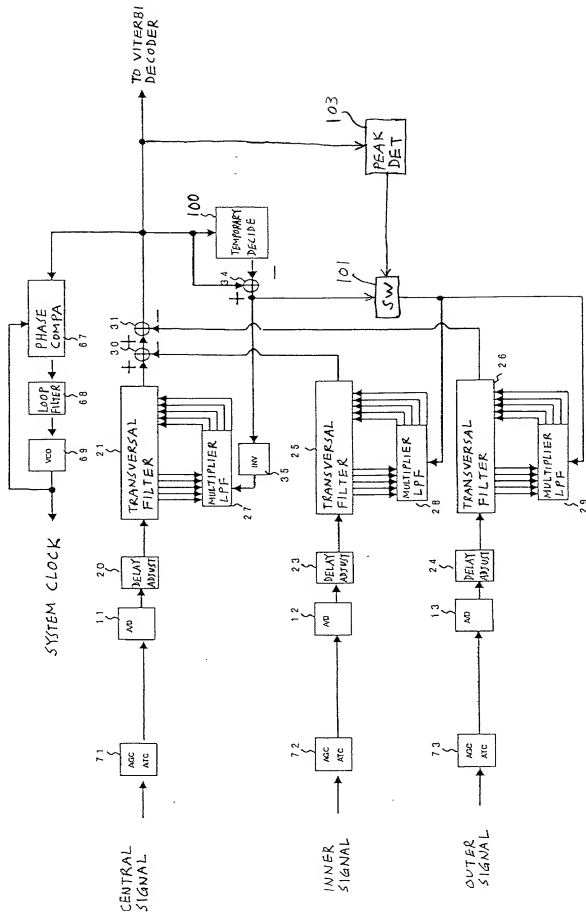


FIG. 26



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FIG. 27



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FIG. 28

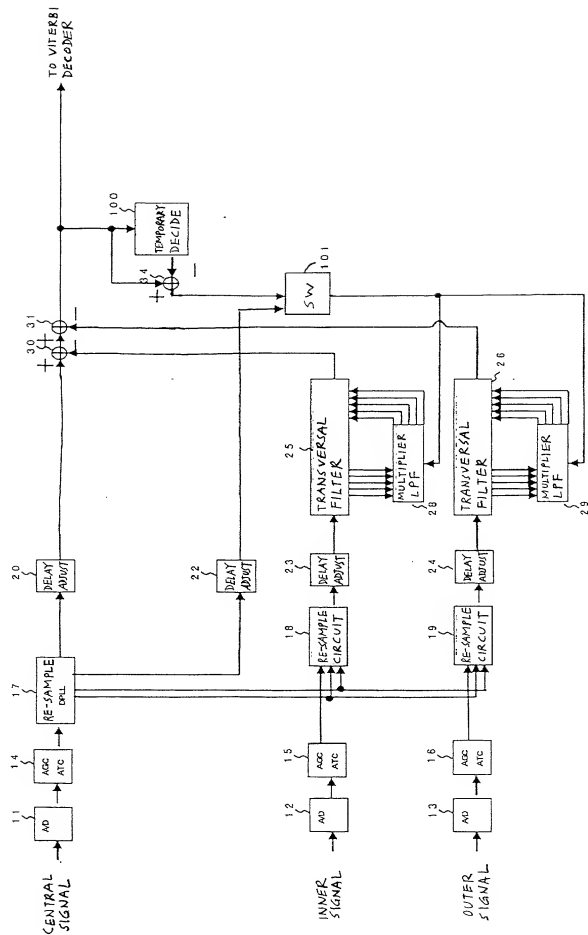
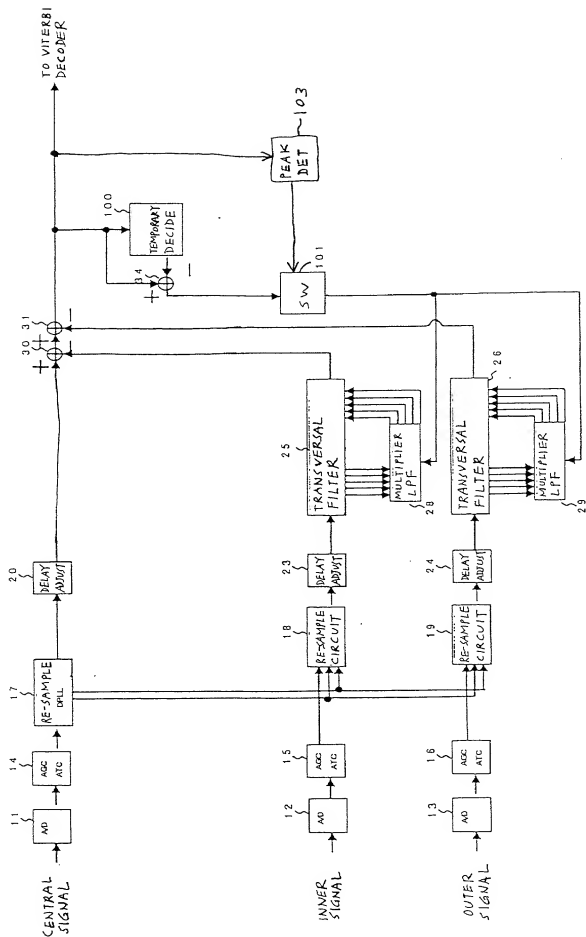
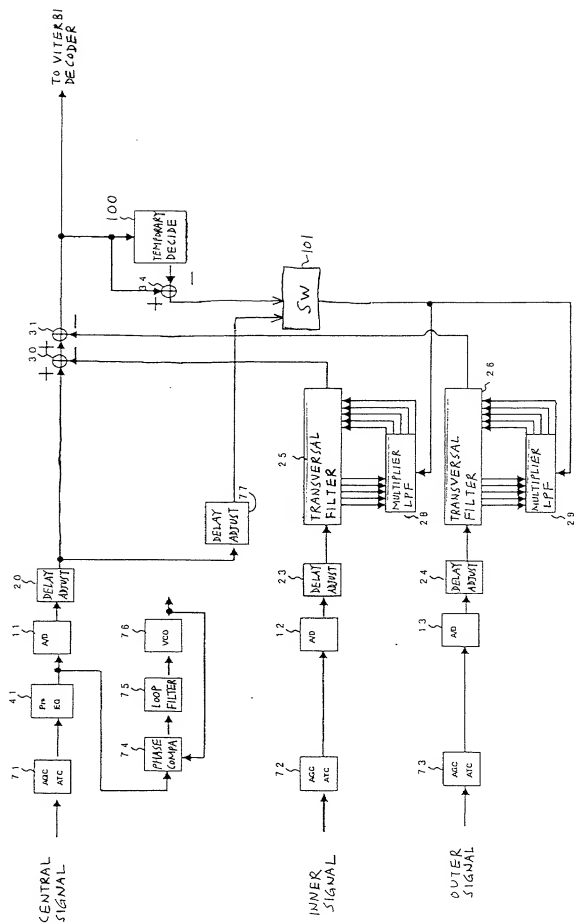


FIG. 29

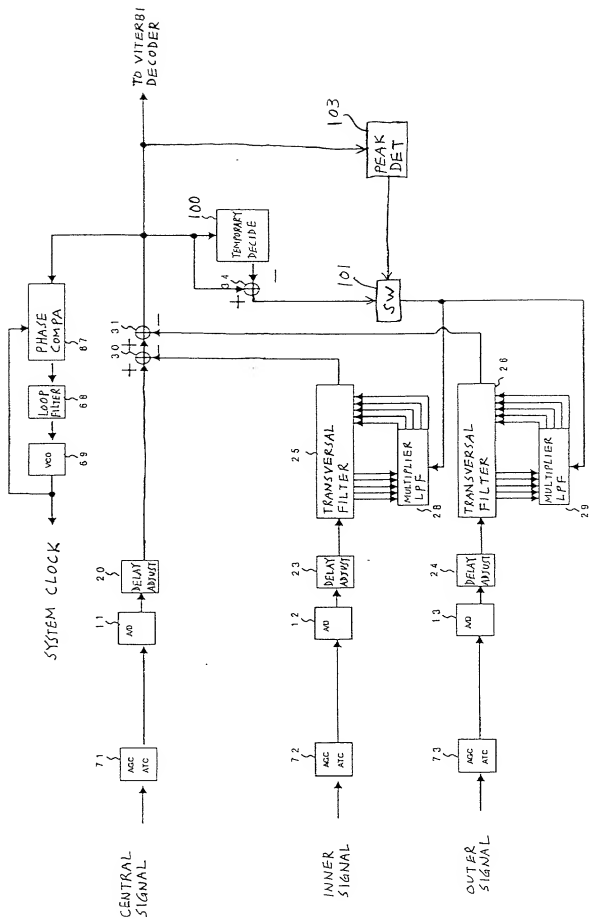


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FIG. 30

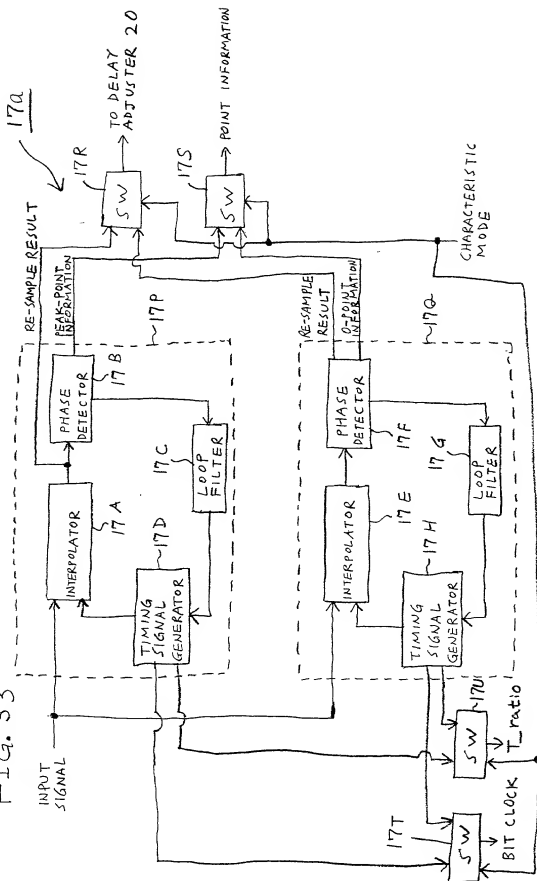


ELI G. 31



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FIG. 33



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FIG. 34

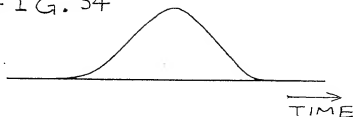


FIG. 35

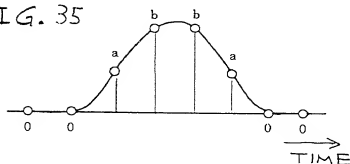


FIG. 36

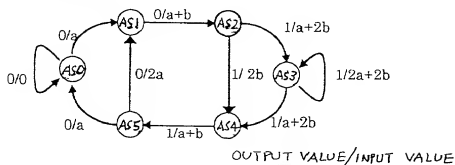
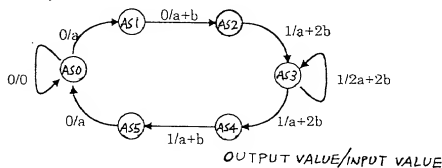


FIG. 37



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FIG. 38

PR MODE		1	2	3	4	5	6	
RLL MODE	RLL (1, X) $\begin{cases} M1-7 \\ MMVF \\ MD2 \end{cases}$	PR(1, 1)	PR(1, 1, 1, 1)	PR(1, 2, 2, 1)	PR(1, 3, 3, 1)	PR(2, 3, 3, 2)	PR(3, 4, 4, 3)	
		2a + 2b		6 \rightarrow + 3	8 \rightarrow + 4	10 \rightarrow + 5	14 \rightarrow + 7	
		a + 2b		5 \rightarrow + 2	7 \rightarrow + 3	8 \rightarrow + 3	11 \rightarrow + 4	
		2b		4 \rightarrow + 1	6 \rightarrow + 2	6 \rightarrow + 1	8 \rightarrow + 1	
		a + b		3 \rightarrow 0	4 \rightarrow 0	5 \rightarrow 0	7 \rightarrow 0	
		2a		2 \rightarrow - 1	2 \rightarrow - 2	4 \rightarrow - 1	6 \rightarrow - 1	
		a		1 \rightarrow - 2	1 \rightarrow - 3	2 \rightarrow - 3	3 \rightarrow - 4	
		0		0 \rightarrow - 3	0 \rightarrow - 4	0 \rightarrow - 5	0 \rightarrow - 7	
		GAIN G	A	A/2	A/3	A/4	A/5	A/7
		2a + 2b		4 \rightarrow + 2	6 \rightarrow + 3	8 \rightarrow + 4	10 \rightarrow + 5	14 \rightarrow + 7
RLL (2, X) $\begin{cases} EFM \\ EFMP \\ M8-15 \\ PR \end{cases}$	a + 2b	2 \rightarrow + 1	3 \rightarrow + 1	5 \rightarrow + 2	7 \rightarrow + 3	8 \rightarrow + 3	11 \rightarrow + 4	
	a + b	1 \rightarrow 0	2 \rightarrow 0	3 \rightarrow 0	4 \rightarrow 0	5 \rightarrow 0	7 \rightarrow 0	
	a	0 \rightarrow - 1	1 \rightarrow - 1	1 \rightarrow - 2	1 \rightarrow - 3	2 \rightarrow - 3	3 \rightarrow - 4	
	0		0 \rightarrow - 2	0 \rightarrow - 3	0 \rightarrow - 4	0 \rightarrow - 5	0 \rightarrow - 7	

FIG. 39

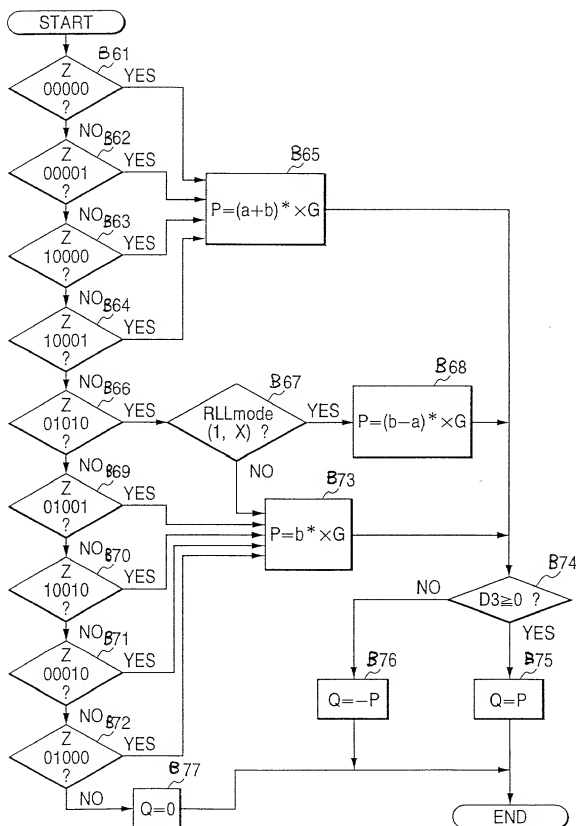


FIG. 40

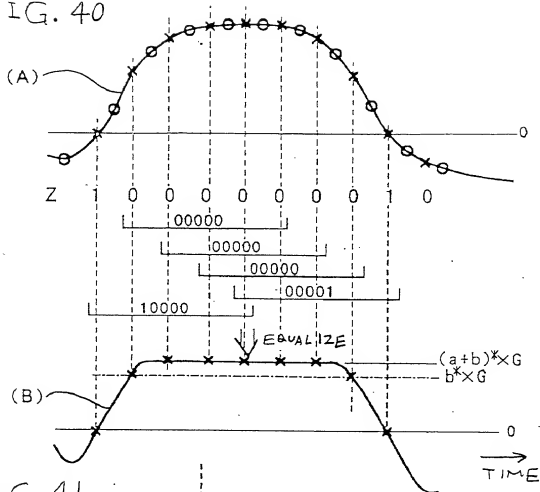


FIG. 41

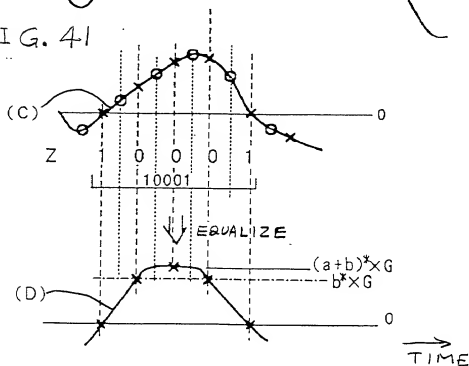


FIG. 42

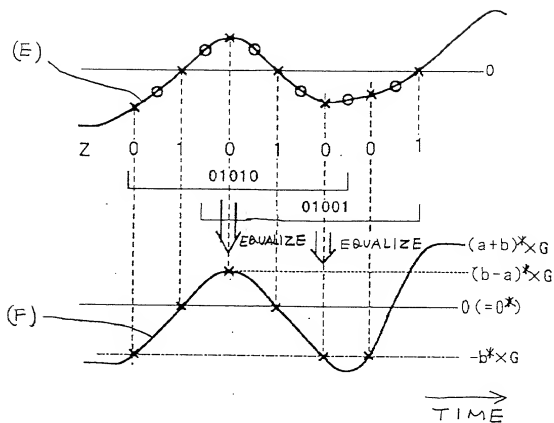


FIG. 43

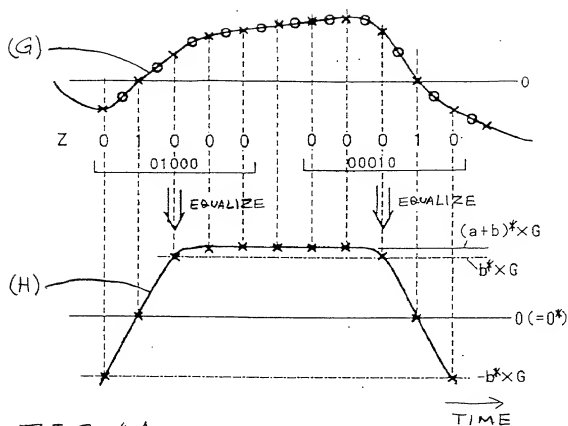


FIG. 44

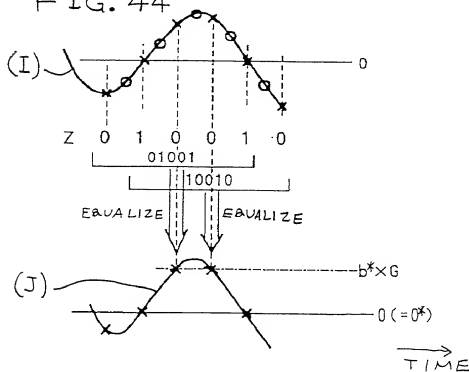
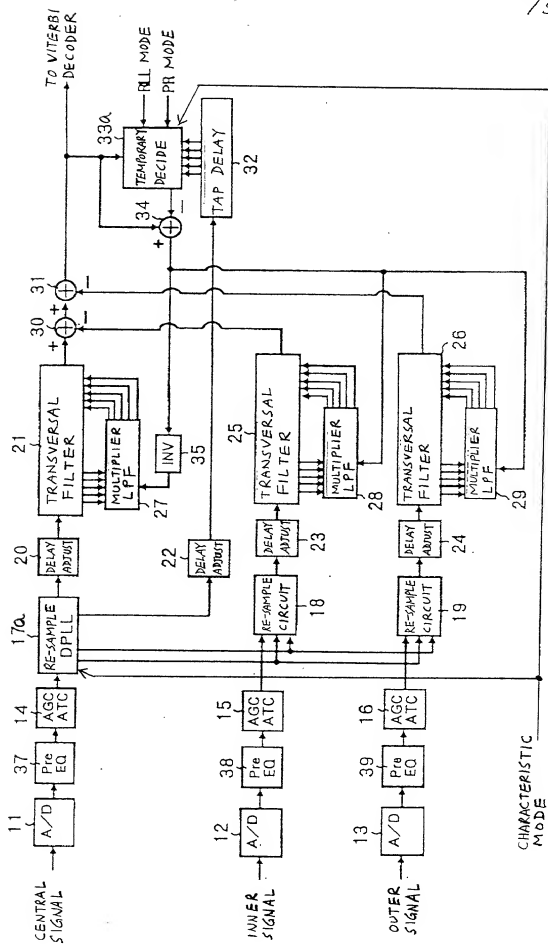


FIG. 45



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FIG. 46

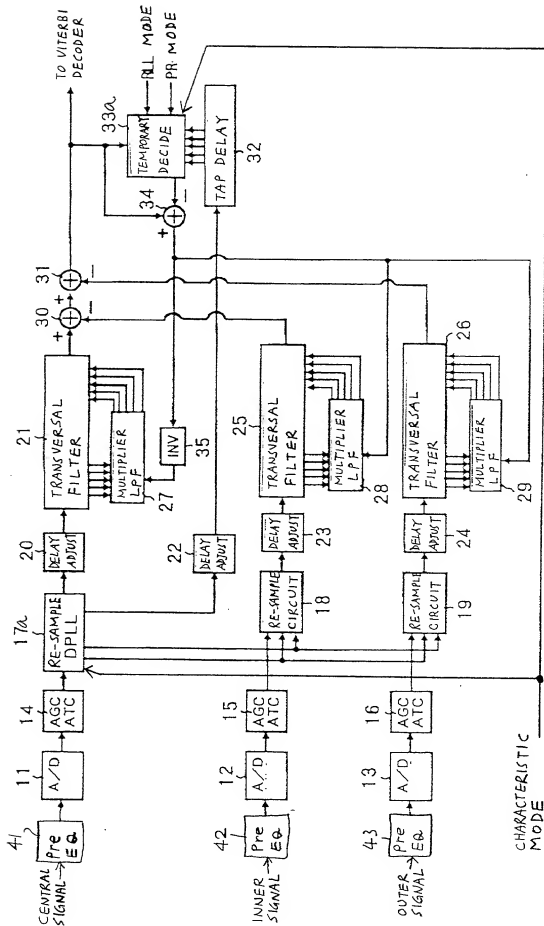
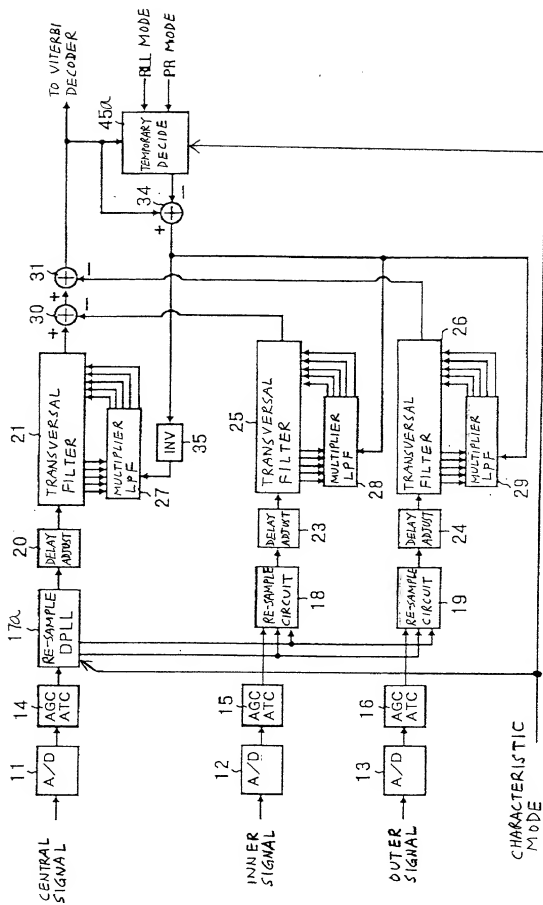


FIG. 47



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FIG. 48

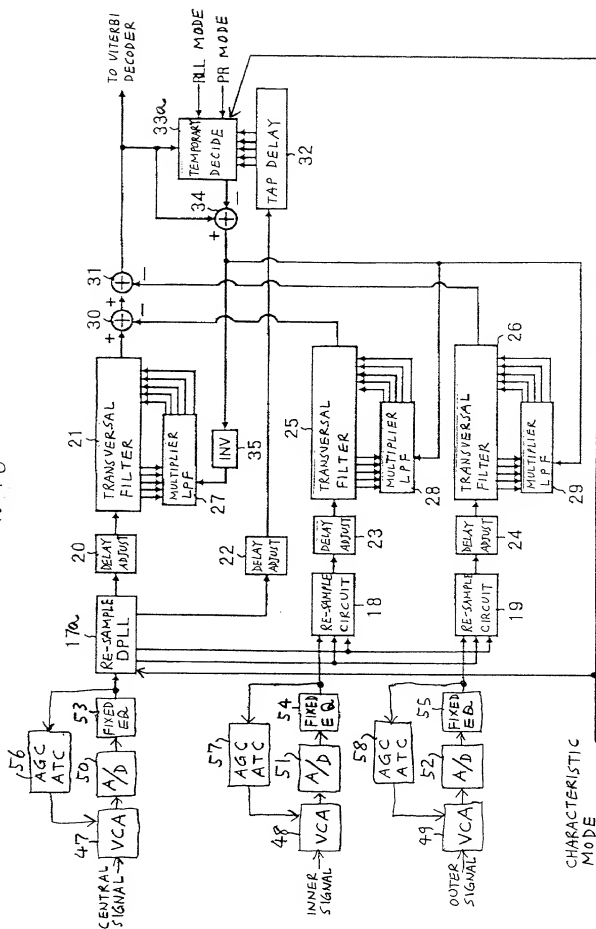
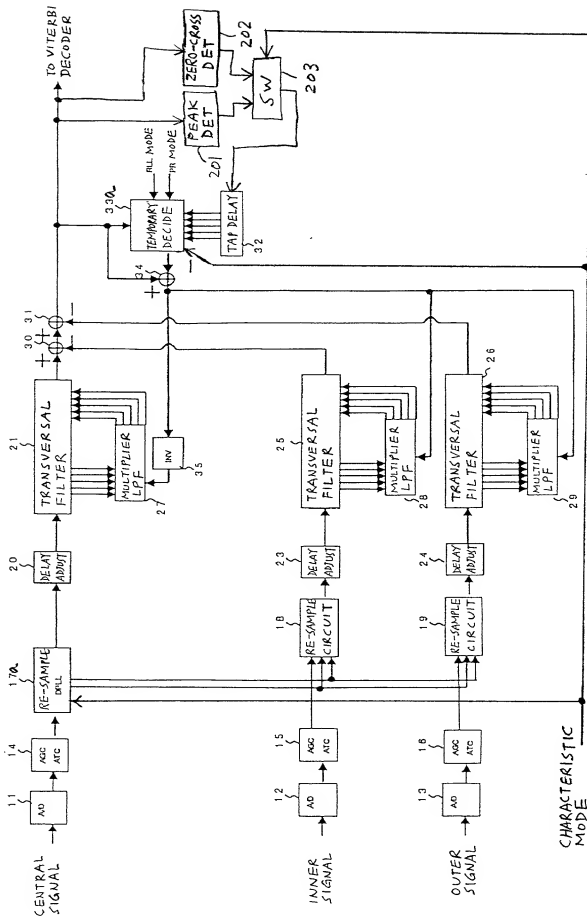


FIG. 50



Year	Age	Sex	Weight (kg)	Length (cm)	Condition	Notes
1981	1	♂	1.2	10.5	Good	First capture
1982	2	♀	1.5	12.0	Good	Second capture
1983	3	♂	1.8	13.5	Good	Third capture
1984	4	♀	2.1	15.0	Good	Fourth capture
1985	5	♂	2.4	16.5	Good	Fifth capture
1986	6	♀	2.7	18.0	Good	Sixth capture
1987	7	♂	3.0	19.5	Good	Seventh capture
1988	8	♀	3.3	21.0	Good	Eighth capture
1989	9	♂	3.6	22.5	Good	Ninth capture
1990	10	♀	3.9	24.0	Good	Tenth capture

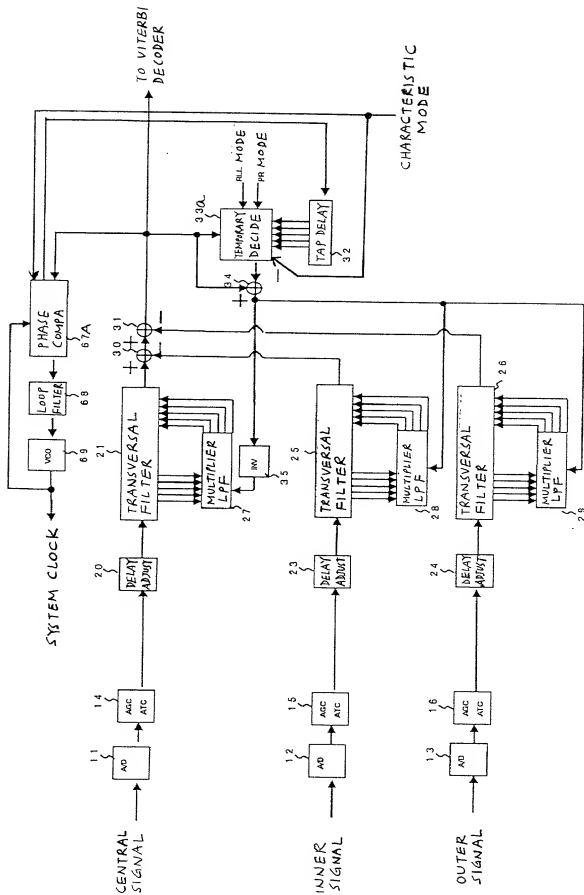


FIG. 52

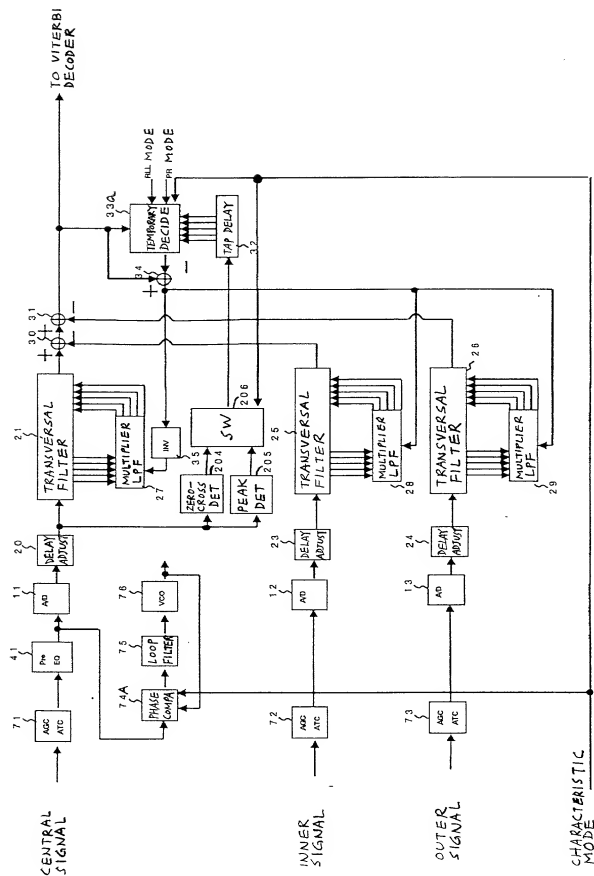
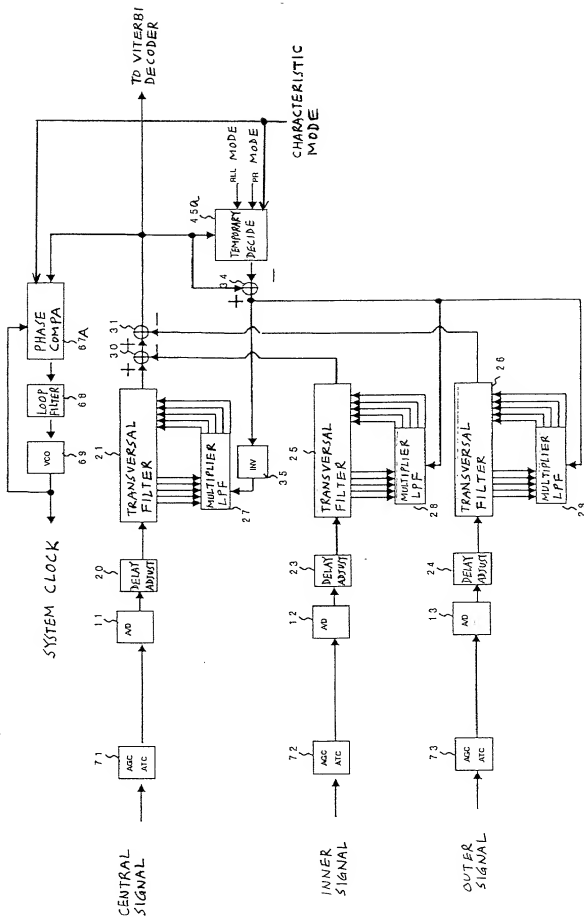


FIG. 53



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FIG. 54

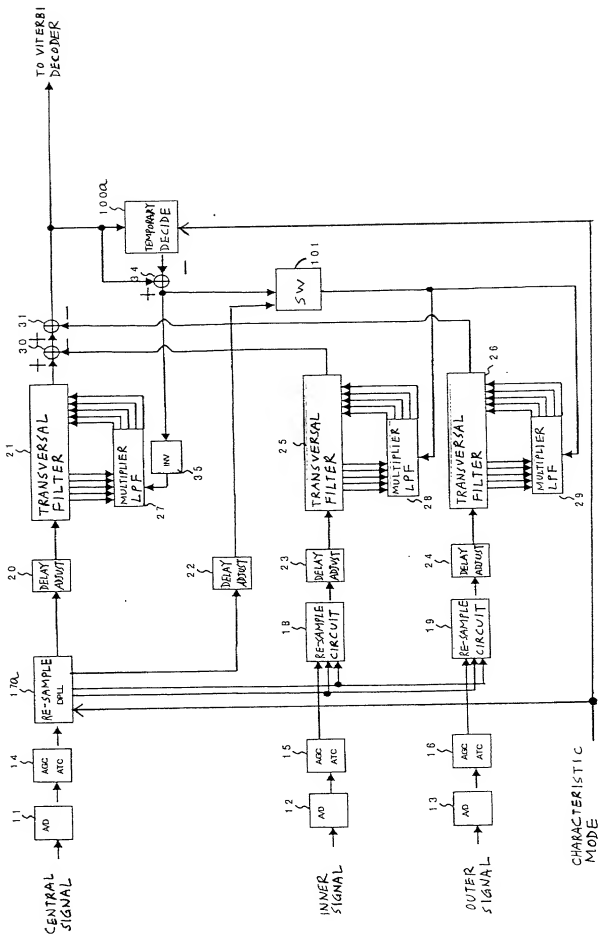
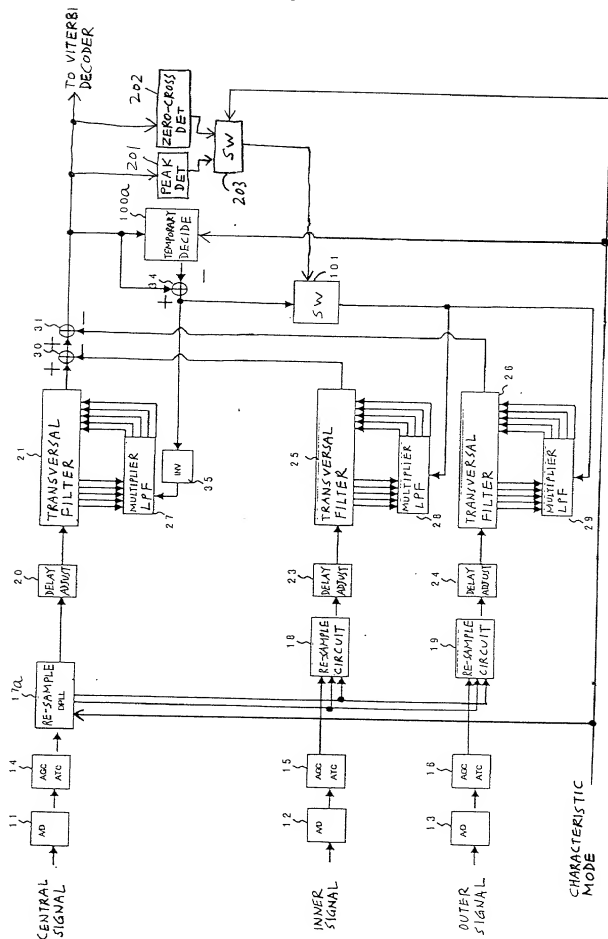


FIG. 55



Year	Month	Day	Time	Lat	Long	Alt	Wind	Temp	Humid	Cloud	Visib	Ref
1961	Jan	1	0800	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	1	1200	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	1	1600	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	1	2000	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	2	0400	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	2	0800	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	2	1200	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	2	1600	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	2	2000	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	3	0400	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	3	0800	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	3	1200	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	3	1600	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	3	2000	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	4	0400	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	4	0800	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	4	1200	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	4	1600	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	4	2000	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	5	0400	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	5	0800	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	5	1200	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	5	1600	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	5	2000	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	6	0400	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	6	0800	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	6	1200	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	6	1600	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	6	2000	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	7	0400	10° 15' N	156° 15' W	1000	10	25	85	100	10	10
1961	Jan	7	0800	10° 15' N	156° 15' W	1000	10	25	85	100		



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FIG. 58

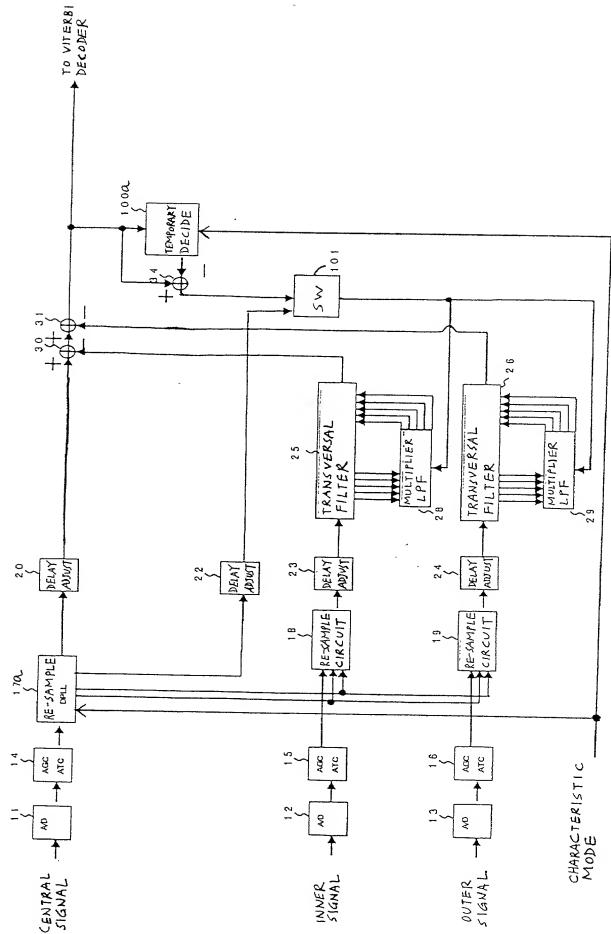
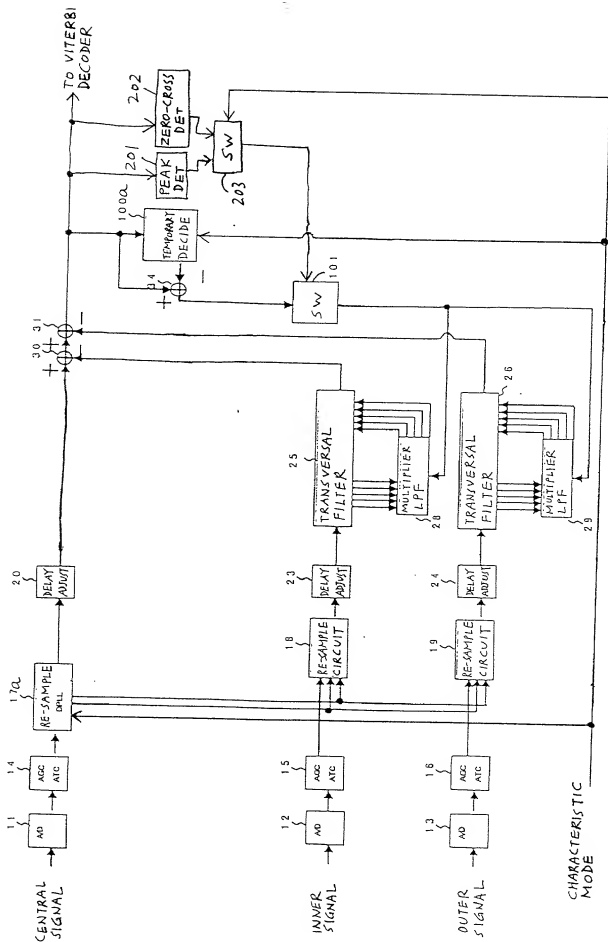


FIG. 59



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09 G. 60

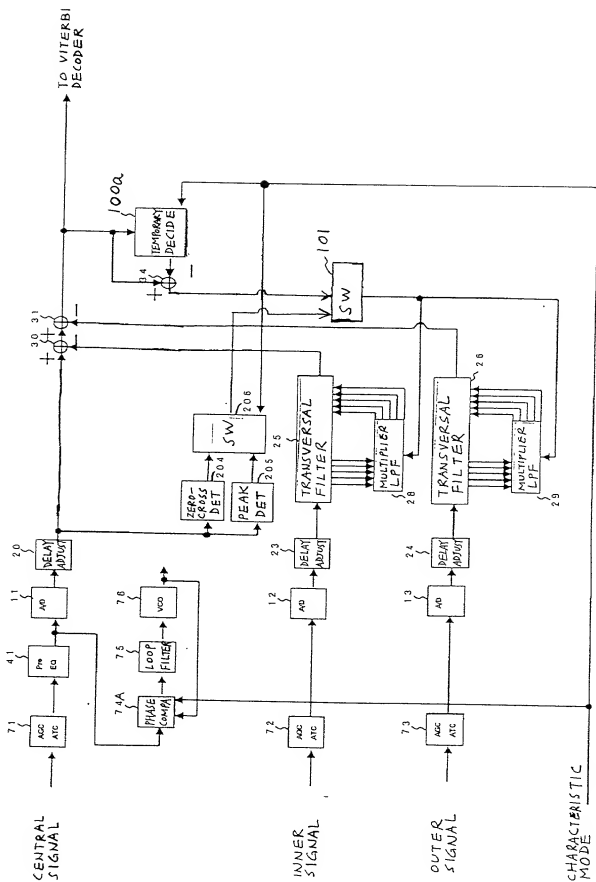
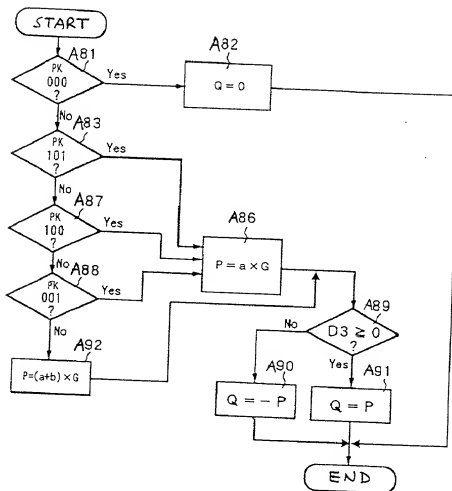


FIG. 62



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FIG. 63

